Lecture Hall 3 A

8:30 - 9:20 a.m.

Chairperson: Reneman RS, Maastricht

3. Duling BR Charlottesville/USA. **Capillary hematocrit - is there a role for intravascular events?**

Lecture Notes:

2029258379

Lecture Hall 2 A

9:30 - 11:00 a.m. **TRANSMITTERS AND MODULATORS**

Chairpersons: Joels M, Amsterdam
Zieglgänsberger W, München

6. Müller W, Petrozzino JJ, Connor JA: Muscarinic, serotonergic, ß-adrenergic and metabotrop-glutamatergic receptors all potentiate intracellular Ca^{2+} accumulations in hippocampal neurons

7. Jarolimek W, Bijak M, Misgeld U: The physiological role for $GABA_B$ receptors in the central nervous system - revisited

8. Haarmeier T, Altrup U, Speckmann E-J: Attenuation of the voltage dependent sodium current by GABA (B4-neuron, buccal ganglia, helix pomatia)

9. Moraidis I, Bingmann D: Paroxysmal depolarizations in CA3- neurons of hippocampal slices after a blockade of adenosine A_1 receptors by caffeine and related drugs

10. Boeijinga PH, Galvan M, van den Hooff P: Actions of 5-HT_{1A} receptor ligands and buspirone on rat dorso-lateral septal neurones in vitro

11. Zeise ML, Madamba S, Siggins GR, Zieglgänsberger W: Interleukin-1ß augments inhibitory postsynaptic potentials in CA1 pyramidal cells of the rat hippocampus in vitro

11:30 a.m.- 1:10 p.m. **PATCH-CLAMP AND ITS GRAND-CHILDREN (Mini-Symposium)**

Chairpersons: Lux HD, München
Trautwein W, Homburg

- Penner R: Currents, capacitance and calcium: Patch-clamp measurements in secretory cells
- Hescheler J: Patch-pipette internal perfusion: A tool to study ion channel regulation
- Konnerth A: Patch-clamp and fluorometric calcium monitoring in sliced preparations
- Nilius B: Ion channels and modulation of cell functions: Novel mechanisms

Source: https://www.industrydocuments.ucsf.edu/docs/rrdl0000

Lecture Hall 2 B

9:30 - 11:00 a.m. **SKELETAL MUSCLE**

Chairpersons: Brenner B, Ulm
Stiene GJM, Amsterdam

364. van Andel AJ, Janssen PML, van Heijst BGV, de Beer EL, Schiereck P: Verapamil and diltiazem enhance maximal tension of skinned single skeletal muscle fibres

365. Hutzler Ch, Brenner B, Kuhn HJ: Calcium affects turn-over kinetics of crossbridges in chemically skinned soleus fibres from the rabbit

366. Köhler RD, Steubing RW, Fink RHA: Influence of ionic strength on relaxation of fast twitch skeletal muscle from rigor by photolysis of caged-ATP

367. Westra HG, Berden JA, Pasman WJ: A model for regulation of actin activated myosin ATPase: Inhibition of the formation of actin-myosin complex

368. Weber C, Palmer S, Köhler R, Fink RHA: Caffeine induced Ca release from ß-escin skinned fast-twitch skeletal muscle fibres at different Mg^{2+}-concentrations

369. Gros G, Haller EA, Dodgson SJ, Forster RE: Orientation of membrane-bound carbonic anhydrase in sarcoplasmic reticulum vesicles of skeletal muscle

11:30 a.m.- 1:10 p.m. **Ca^{2+}-RELEASE FROM INTRACELLULAR POOLS (Mini-Symposium)**

Chairpersons: Isenberg G, Köln
Penner R, Göttingen

307. Wendt-Gallitelli MF, Isenberg G, Voigt T: Calcium imaging of free sarcoplasmic reticulum. X-ray microanalysis of voltage-clamped guinea-pig ventricular myocytes

308. Ganitkevich V, Isenberg G: Ca^{2+} induced Ca^{2+} release from caffeine sensitive Ca^{2+} stores in smooth muscle cells from guinea-pig urinary bladder

309. Hoth M, Penner R: Novel calcium current in mast cells: Activation through calcium release

310. Reiser G, Cesar M, Binmöller F-J: Bradykinin and muscarine induce Ca^{2+}-dependent membrane potential oscillation in rat glioma cells indicating a 'quantal' Ca^{2+} release from internal stores

20292583

Lecture Halle 2 C **SENSORY PHYSIOLOGY**

9:30 - 11:00 a.m. Chairpersons: Schmidt RF, Würzburg; Eysel UT, Bochum

182. Stiller RU, Grubb BD, Schaible H-G: Effects of microiontophoretically applied kappa and mu opioid agonists on the discharges of spinal neurons with ankle input in normal and monoarthritic rats

183. Peppel P, Anton F: Discharge behavior of rat trigeminal brainstem neurons following controlled noxious chemical stimulation of the nasal mucosa: Effects of stimulus intensity and duration, interstimulus interval and heterotopic conditioning

184. Vahle-Hinz C, Pawlak M, Kniffki K-D: Topology of the dendritic arborizations of neurons in the somatosensory thalamus

185. Reinert A, Vitek M, Mense S: Effects of substance P on the activity of high- and low-threshold mechanosensitive receptors of the rat diaphragm in vitro

186. Koltzenburg M, Handwerker HO: Microneurographic investigations of mechanical pain and hyperalgesia

187. Hanitzsch R, Mättig W-U: Light induced potassium changes in the isolated rabbit retina under normal and abnormal conditions

11:30 a.m. - 1:00 p.m. **BRAIN METABOLISM AND GLIA**

Chairpersons: Witte OW, Düsseldorf, Grafe P, München

75. Lehmenkühler A, Kolb J, Scheller D, Tegtmeier F, Peters T, Speckmann E-J: Increase of extracellular phosphate concentration in the cerebral cortex during generalised tonic-clonic seizures as measured by in vivo microdialysis

76. Roth J, Conn C, Kluger MJ, Zeisberger E: Systemic and intrahypothalamic release of cytokines during endotoxin fever in guinea pigs

77. Brühl C, Kloiber O, Witte OW, Hossmann K, Dorn T: Metabolic changes caused by penicillin-induced focal epileptic discharges in the brain of rats

78. Strupp M, Staub F, Baethmann A, Grafe P: A Ca^{2+}- and pH- dependent K^+-channel of rat C6-glioma cells and its possible role in acidosis-induced cell swelling

79. Munsch T, Deitmer JW: 5-hydroxytryptamine and potassium induced increases in intracellular calcium in identified leech glial cells

80. Reichelt W, Müller T, Pastor A, Schnitzer J, Kettenmann H: Endfoot current recordings from mouse and guinea pig Müller cells of the isolated retina

Source: https://www.industrydocuments.ucsf.edu/docs/rrdl0000

Lecture Hall 2 D

9:30 - 11:00 a.m. **EPITHELIAL Ca^{2+} CONTROL**

Chairpersons: Oberleithner H, Würzburg
Bindels RJM, Nijmegen

269. Bindels RJM, Ramakers PLM, Dempster JA, Willems PHGM, van Os CH: Effects of protein kinase C activation and down-regulation on active Ca^{2+} transport across rabbit renal collecting system

270. Mooren F, Kinne RKH: Intracellular calcium changes in primary cultures of inner medullary collecting duct (IMCD) cells during variation of extracellular osmolality

271. Koster HPG, van Os CH, Bindels RJM: Sodium-free solutions induce intracellular calcium ($[Ca]_i$) oscillations in primary cultures from rabbit cortical collecting system

272. Wojnowski L, Schwab A, Westphale H-J, Wünsch S, Oberleithner H: Role of calcium in membrane potential oscillations of transformed MDCK cells

273. Willems PHGM, van Emst-de Vries SE, De Pont JJHHM: Dose-dependent recruitment of pancreatic acinar cells during receptor-mediated calcium mobilization

11:30 a.m. - 1:10 p.m. **RECEPTOR AND G-PROTEIN MEDIATED SIGNAL TRANSDUCTION (Mini-Symposium)**

Chairpersons: Schulz I, Homburg
Moolenaar W, Amsterdam

17. Gierschik P, Camps M, Schnabel P, Carozzi A, Parker PJ: Regulation of phospholipase C by heterotrimeric GTP-binding proteins

18. Kleuss C, Hescheler J, Scherübl H, Gollasch M, Offermanns S, Spicher K, Rosenthal W, Wittig B, Schultz G: Identification of G-protein subtypes involved in hormonal inhibitions of voltage-dependent calcium channels in rat pituitary GH_3 cells

19. Lohse MJ: Regulation of the ß-adrenergic receptor/adenylyl cyclase system

20. Moolenaar W, Jalink K, van Corven E, Eichholtz T, van der Bend R, van Blitterswijk W: Signal transduction by mitogenic phospholipids

2029258381

Lecture Halle 3 E

9:30 - 11.00 a.m. **CORONARY PHYSIOLOGY**

Chairpersons: Gerlach E, München
Spaan JAE, Amsterdam

457. Prinzen FW, Lawrence CJ, van Leeuwen CJ, de Lange S: Effect of the specific alpha2-adrenergic agonist dexmedetomidine on myocardial oxygen supply and demand in anestetized dogs

458. Baumgart D, Ehring Th, Bergmann P, Heusch G: Inconsistent effect of alpha-adrenergic coronary vasoconstriction on transmural blood flow distribution during neuronal norepinephrine release

459. Bussemaker J, Groeneveld ABJ, Westerhof N: Can heterogeneity of coronary blood flow be explained by regional differences in metabolic activity?

460. Sonntag M, Schrader J: Spatial heterogenity of myocardial perfusion and metabolism

461. Becker BF, Newman WH, Gerlach E: Stimulation of endothelial guanylyl cyclase induces vascular fluid leakage in the coronary system

462. Vergroesen I, Han SYA, Goto M, Spaan JAE: Stopped flow coronary venous pressure as indication of capillary pressure in the beating heart

11:30 a.m.- 1:10 p.m. **FUNCTIONAL IMPLICATIONS OF ENDOTHELIUM-DERIVED NITRIC OXIDE (Mini-Symposium)**

Chairpersons: Busse R, Freiburg
de Mey JGR, Maastricht

463. Mülsch A, Mordvintcev P, Vanin A, Bassenge E, Busse R: Endogenous iron-sulfur-complexes as a store and carrier of nitric oxide in vascular tissue

464. Pohl U, Nolte C, Bunse A, Eigenthaler M, Walter U: Effect of EDRF and prostaglandin on phosphorylation of a particulate platelet protein (VASP) in isolated rabbit hearts

465. Scholz H, Kurtz A: Effects of endothelium-derived relaxing factors/nitric oxide on flowdynamics and renin secretion from isolated perfused rat kidneys

466. Ehmke H, Baumann JE, Kirchheim HR, Persson PB: Acute inhibition of EDRF induces long-term cardiovascular effects in conscious dogs

Source: https://www.industrydocuments.ucsf.edu/docs/rrdl0000

SYNAPTIC TRANSMISSION

Chairperson: Hatt H, München

33. Mironov SL: Ca transients, waves and oscillations in nerve cells: Modelling and testing

34. von Rüden L, Neher E: Functionally distinct pools of secretory vesicles in bovine chromaffin cells

35. von Haebler D, Stabel J, Ficker E, Heinemann U: Properties of horizontal neurons transiently appearing near the hippocampal fissure during ontogenesis of rats

36. Misgeld U, Bijek M, Brunner H, Dembowsky K: Hilar neuron-granule cell interaction in the guinea pig hippocampal slice

37. Brunner H, Misgeld U: On the mechanisms of (-)baclofen effects on field potentials evoked in guinea pig dentate granule cells

38. Lücke A, Woesler B, Lehmenkühler A, Speckmann E-J: GABA induced field potential shifts in the neocortex of rats in vivo

39. Opitz T, Zufall F, Bufler J, Hatt H: Patch clamp recordings from granule cells of rabbit olfactory bulb slices

40. Kraszewski K, Grantyn R: Development of GABA-ergic synaptic connections in vitro associated with presynaptic but not postsynaptic differentiation

41. Krupp J, Feltz P: Effects of glycine and GABA on sympathetic preganglionic neurones of rat spinal cord in vitro

42. Wang Z, Ypey DL, Van Duijn B: Inositol triphosphates-induced hyperpolarization in rat dorsal root ganglion neurons

2029258382

TRANSMITTER

Chairperson: Swandulla D, Göttingen

43. Hans M, Swandulla D: Ionic currents in hypothalamic magnocellular neurons from the supraoptic nucleus

44. Walsh IB, van den Berg RJ, Rietveld WJ: Voltage dependent conductances in cultured rat suprachiasmatic neurons

45. Diewald L, Büsselberg D, Heimrich B, Haas HL: Hypothalamo- hippocampal cocultures of the rat: Electrophysiology

46. Schmid O, Schmid K, Haas HL: Histamine receptor mediated effects on neurons of the bed nucleus of the stria terminalis of rats in vitro

47. Heimrich B, Derouiche A, Frotscher M: Glutamine synthetase- containing astrocytic processes around synapses in organotypic cultures of rat hippocampus

48. Fuchs E, Uno H, Dong S, Jöhren O, Flügge G: Corticosteroids and neurodegeneration of hippocampal pyramidal cells

49. Schmid HA, Simon E: Species differences in the response of subfornical organ neurons to ANF

50. Bock M, Roth J, Zeisberger E: Pyrogenic effects of cytokines microinfused into the hypothalamus of guinea pigs

51. Schramm E, Meßlinger K, Silber R, Henrich HA, Schmidt RF: Ultrastructural changes and uptake of 5-hydroxydopamine by sympathetic nerve terminals in the pig heart during myocardial infarction

52. Zittlau KE, Walther C: Octopamine and cyclic nucleotides elicit a chloride current in locust skeletal muscle

53. Stehle J, Weaver D, Rivkees S, Reppert S: Molecular cloning and characterization of 3 different adenosine receptor subtypes

Source: https://www.industrydocuments.ucsf.edu/docs/rrdl0000

EPILEPSY

Chairperson: Wadmann W, Amsterdam

54. Bonnet U, Bingmann D: GABA responses of CA3 neurons in hippocampal slices exposed to different epileptogenic drugs

55. Domann R, Witte OW: Termination of paroxysmal depolarisation shifts by inhibitory afterpotentials

56. Kral T, Luhmann HJ, Mittmann T, Heinemann U: Repetitive hypoxia in rat neocortex in vitro and neuroprotective effect of verapamil

57. Luhmann HJ, Heinemann U: Anoxia-induced suppression of inhibitory synaptic activity in rat neocortex in vitro

58. Zhang CL, Heinemann U: Effects of the anticonvulsant loreclezol on stimulus induced responses in rat hippocampus and on different patterns of epileptform activity in rat temporal cortex slices

59. Schwindt W, Lehmenkühler A, Nicholson C: Pentylenetetrazol diffusion in the neocortex of the rat and in an agar reference medium

60. Sutor B, Luhmann H: Modulation of convulsant-induced epileptiform activity in rat neocortical slices by the $GABA_B$-receptor antagonist CGP 35348

61. Straub H, Köhling R, Speckmann E-J: Antiepileptic effect of verapamil on low Mg^{2+}-induced epileptiform discharges in neocortical slices of the guinea pig

62. Bloms P, Madeja M, Mußhoff U, Lehmenkühler A, Spener F, Speckmann E-J: Permeability of cell membranes to the epileptogenic substance pentylenetetrazol (oocytes, xenopus laevis)

63. Altrup U, Speckmann E-J: Epileptic field potentials in the buccal ganglia of helix pomatia

2029258383

CHANNELS III

Chairperson: Schwarz JR, Hamburg

103. Terlau H, Stühmer W, Heinemann SH: Mapping sites for TTX and STX block and the ion pathway of the sodium channel

104. Alzheimer C, Schwindt PC, Crill WE: Brain sodium channels occasionally fail to inactivate

105. Bräu M, Koh D-S, Hempelmannm G, Vogel W: The effect of local anaesthetics on ion channels in the node of Ranvier

106. Koh D-S, Vogel W: Na-activated K channels localised in the nodal area of myelinated nerve

107. Scholz A, Reid G, Bostock H, Vogel W: Na and K channels in human axons

108. Kampe K, Safronov B, Vogel W: A Ca-activated and three voltage dependent K channels identified in mammalian peripheral nerve

109. Bauer CK, Krylov B, Zhou P-A, Schwarz JR: Sodium currents of GH_3/B_6 cells are differently affected by two fractions of Buthus martensii (Karsch) scorpion venom

110. Strupp M, Quasthoff S, Mitrovic N, Grafe P: Changes in inactivation of single rat axonal sodium channels caused by membrane excision

111. Brinkmeier H, Wollinsky KH, Hülser P-J, Seewald M, Mehrkens HH, Kornhuber HH, Wiethölter H, Rüdel R: The acute paralysis in Guillain Barré syndrome is related to a Na^+ channel blocking factor in the cerebrospinal fluid

112. Kaspar A, Brinkmeier H, Wiethölter H, Rüdel R: Interleukin-2 specifically blocks muscular Na^+ channels without involving the IL-2 receptor

Source: https://www.industrydocuments.ucsf.edu/docs/rrdl0000

CHANNELS IV

Chairperson: Witte OW, Düsseldorf

118. Borchard U, Berger F, Hafner D, Weis T: Modulation of ionic currents in mouse peritoneal macrophages by lipoproteins

119. Markwardt F, Linde T, Zentgraf O: Single-channel recordings from a cell line of B-lymphocytes

120. Nguyen-Duong H: Mechanisms of fluoride-induced contractions in vascular smooth muscle in presence and absence of external calcium

121. Lorkovic H: Voltage-dependent and -independent effect of charged agents on ACh-evoked currents in mouse endplates

122. Lehmann-Horn F: Structure-function analysis of point mutations of the sarcolemmal TTX-sensitive sodium channel gene

123. Sacchi O, Belluzzi O, Bardoni R, Magherini PC: A potent alkaloid extracted from the Australian frog Pseudophryne coriacea: Electrophysiological effects

124. Bufler J, Franke C: Physostigmin (Phy) is a blocker and an agonist of the nicotinic acetylcholine receptor (nAChR)

125. Franke C, Parnas H, Dudel J: A molecular model of desensitization of the nicotinic acetylcholine receptor (nAChR)

126. Klusemann J, Meves H: The effects of phloretin on single potassium channels of nerve fibres of Xenopus laevis

127. Repp H, Deist M, Dreyer F: Sulfonylurea-sensitive potassium channels and their probable role for the membrane potential of mouse motor nerve endings

2029258384

VISION

Chairperson: Hanitzsch R, Leipzig

188. van Hof WM, Lagers-van Haselen GC: The tactile oblique effect in human subjects

189. Bessler K, Nöll GN: HPLC of retinoids: Replacement of toxic 1,4-dioxan and n-hexane by tert-butylmethylether and n- heptane

190. Orazem A, Scheibner H: Opponent-colour vision of a deuteranope

191. Göpfert E: On motion-onset VEPs using nasal and temporal half-field stimulation

192. Richter F, Wicher C, Haschke W: Amplitudes of occipital VEP are an indicator for changes in actual cortical activation state

193. Müller R, Greenlee MW: Effect of contrast and adaptation on the motion threshold of drifting gratings

194. Müller S, Wist ER, Ehrenstein W: A new test of visual acuity based on random-dot motion contrast

195. Wist ER, Schrauf M, Ehrenstein WH, Schlykowa L, Niedegggen M: VEP and psychophysical correlates of contour processing based on motion contrast

196. Greenlee WM, Rischewski J, Mergner T, Seeger W: Delayed spatial frequency discriminations in patients with unilateral temporal lobe damage

197. Taghavy A, Hamer H: Multichannel recordings of pattern reversal visual evoked potentials (PVEPs): Effects of stimulating the foveal and perifoveal retina in man

198. Necker R, Rehkämper G, Nevo E: The somatosensory cortex of the blind mole rat, Spalax ehrenbergi: An electrophysiological investigation

Source: https://www.industrydocuments.ucsf.edu/docs/rrdl0000